

WHAT IS CLAIMED IS:

1. A method for analyzing turbine noise vibrations comprising the steps of:

receiving at an expert site recorded noise information relating to noise of a hydraulic turbine recorded at a remote site either during turbine operation at the remote site or intentionally produced for test purposes at the remote site; and,

analyzing the recorded noise information at the expert site.

2. The method of claim 1 further included the step of diagnosing the cause of the turbine noise information and modifying turbine design.

3. The method of claim 1 wherein the step of receiving the computer noise information involves receiving a computer file from the remote site via email.

4. The method for analyzing turbine noise vibrations comprising the steps of:

recording noise of a hydraulic turbine either during turbine operation at a remote site or intentionally produced for test purposes from the remote site to produce recorded noise information;

forwarding the recorded noise information from the remote site via a communication link to an expert site; and,

analyzing the recorded noise information at the expert site.

5. The method of claim 4 further including the step of diagnosing the cause of the turbine noise information and modifying turbine design.

6. The method of claim 5 wherein the step of recording utilizes a portable computer and microphone connected to the computer for recording the noise information into the computer file.

7. The method of claim 6 wherein a Windows sound recorder program is utilized to capture the noise information.

8. The method of claim 6 further comprising the steps of:

compressing the computer file of the recorded noise prior to the step of forwarding the recorded noise information to the expert site; and,

un-compressing computer file of the recorded noise at the expert site prior to the step of analyzing the recorded noise information.

9. The method of claim 4 wherein the step of forwarding the computer noise information involves sending the file from the remote site to the expert site via email.

10. The method of claim 9 wherein the step of recording utilizes a portable computer and microphone attached to the computer for recording the noise information into the computer file.

11. The method of claim 7 wherein a Window sound recorder program is utilized to capture the noise information.

12. The method of claim 10 further comprising the steps of:
compressing the computer file of the recorded noise prior to the step of forwarding the recorded noise information to the expert site; and,
un-compressing the computer file of the recorded noise at the expert site prior to the step of analyzing the recorded noise information.

13. A system for analyzing turbine noise vibrations comprising:
an expert site for receiving from a communication link recorded noise information relating to noise of a hydraulic turbine recorded at a remote site either during turbine operation at the remote site or intentionally produced for test purposes at the remote site; and,
analyzing tool for analyzing the recorded noise information at the expert office site.

14. The system of claim 13 wherein the expert site further diagnoses the cause of the turbine noise information and recommends modifications to turbine design.

15. The system of claim 13 wherein the step of receiving the computer noise information involves receiving a computer file from the remote site via email.

16. A system for analyzing turbine noise vibrations comprising:
a remote site recorder for recording the noise of a hydraulic turbine either during turbine operation at a remote site or intentionally produced for test purposes from the remote site to produce recorded noise information;

a communication link for forwarding the recorded noise information from the remote site to an expert site; and,

an analyzing tool for analyzing the recorded noise information at the expert site.

17. The system of claim 16 further including diagnosing the cause of the turbine noise information and modifying turbine design.

18. The system of claim 17 wherein the remote site recorder comprises a portable computer and microphone attached to the computer for recording the noise information into the computer file.

19. The system of claim 18 wherein the remote site recorder comprises a sound recording program utilized to capture the noise information.

20. The system of claim 18 where the remote site compresses the computer file of the recorded noise and the expert site un-compressing the computer file of the recorded noise.

21. The system of claim 13 wherein the communication link forwarding the computer noise information involves sending the file from the remote site to the expert site via email.

22. The method of claim 21 wherein the remote site recorder comprises a portable computer and microphone attached to the computer for recording the noise information into the computer file.

23. The method of claim 17 wherein the remote site recorder comprises a program utilized to capture the noise information.

24. The method of claim 22 wherein the remote site compresses the computer file of the recorded noise and, the expert site un-compresses the computer file of the recorded noise.